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Ulrich Brochheuser

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EXAMINER

SULLIVAN, DEBRA M

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ULRICH BROCHHEUSER and ANDREAS GEHRKE

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Appeal 2009-008694  
Application 10/562,349  
Technology Center 3700

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Before LINDA E. HORNER, KEN B. BARRETT, and  
FRED A. SILVERBERG, *Administrative Patent Judges*.

SILVERBERG, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Ulrich Brochheuser and Andreas Gehrke (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1, 8, 10 and 12-15.

We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

## THE INVENTION

Appellants' claimed invention is directed to a process of producing an inner profile in a tube or a hollow profile (Spec. 3:6-7).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A process of producing an inner profile in a tube or hollow profile comprising:
  - providing one of a tube or hollow profile having an internal through opening and a constant cross section over the length thereof,
  - inserting the tube or hollow profile into a supporting sleeve, with a first tube end being axially supported;
  - placing a pressure-loaded annular die on to a second tube end;
  - pressing a forming die with an outer profile into the tube or hollow profile from the second tube end for producing the inner profile; and
  - allowing a return of the annular die under a pressure load in the opposite direction of that of pressing in the forming die;
  - wherein the pressure load on the annular die is reduced with an increasing return path.

### THE REJECTIONS

The following rejections by the Examiner are before us for review:

1. Claims 1 and 12-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art<sup>2</sup> (Spec. 1:8-15 (para. 2), hereinafter "AAPA") in view of Ihara (US 2002/0092168 A1, published Jul. 18, 2002).
2. Claims 8 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Ihara, and further in view of Budrean<sup>3</sup> (US 4,785,648, issued Nov. 22, 1988).

### ISSUE

The issue before us is whether the Examiner erred in concluding that the combined teachings of AAPA and Ihara would have led a person having ordinary skill in the art to the step of "allowing a return of the annular die under a pressure load in the opposite direction of that of pressing in the forming die; wherein the pressure load on the annular die is reduced with an increasing return path," as called for in independent claim 1 (App. Br. 7).

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<sup>2</sup> AAPA was omitted in the Evidence Relied Upon section of the Examiner's Answer (Ans. 2), but was referenced in the rejection of independent claim 1 (Ans. 3), and was not contested by Appellants (*see* App. Br. 5).

<sup>3</sup> Budrean was omitted in the Evidence Relied Upon section of the Examiner's Answer (Ans. 2), however, it was included in a separate listing of the evidence dated February 27, 2009.

## ANALYSIS

### *Rejection of claims 1 and 12-15 AAPA and Ilhara*

Appellants contend that it is not inherent in Ilhara that the pressure load acting on the annular die must be reduced with an increasing path (App. Br. 7).

The Examiner found that AAPA, *inter alia*, does not describe that the pressure load on the annular die is reduced with an increasing return path (Ans. 3).

The Examiner found that

Ilhara clearly shows in figure 4b [entitled “CUP FORMING”] the work piece prior to operation of the press (dotted line going across forming die 42) and the work piece during operation of the press. As the forming die (42) contacts the work piece and begins to form a hollow profile material is extruded backwards causing material to build up against the annular die, as the pressure of the material increases against the annular die (43) the pressure load of the annular die (43) will reduce to allow the material to extrude backwards. Therefore, the annular die (43) of Ilhara is going to be reduced with an increasing return path since as the material is extruded by the forming die (42) it will push up against the annular die (43) and the annular die will have to give (i.e. reduce pressure) and move upwards in order to allow a backward extrusion process to occur.

(Ans. 6) (emphasis bolded).

The Examiner concluded that “it would have been obvious . . . to modify the prior art process [AAPA] with a pressure loaded annular die that returns under a pressure load in order to evenly control the backward extrusion of the tube or hollow profile” as taught by Ilhara (Ans. 4).

Claim 1 calls for, *inter alia*, “the pressure load on the annular die is reduced with an increasing return path.”

As set forth *supra*, the Examiner refers to the cup forming process in Figure 4(B) for providing the step of the pressure load on the annular die being reduced with an increasing return path.

However, Ihara is silent as to particular pressure load on the annular die (stripper) 43 during the cup forming process described in Figure 4. As such, it becomes incumbent upon the Examiner to provide an adequate basis in fact and/or technical reasoning that would support a finding that the pressure load on Ihara's annular die (stripper) 43 is reduced with an increasing return path, as set forth in independent claim 1. The Examiner in proffering the finding that the pressure load on Ihara's annular die (stripper) 43 is reduced with an increasing return path has not directed us to a particular portion in Ihara which would support the finding. Further, we do not find any support for the Examiner's finding. We find that the Examiner has not provided an adequate basis in fact and/or technical reasoning that would support the finding that the pressure load on Ihara's annular die (stripper) 43 is reduced with an increasing return path. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) ("Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.")

In view of the above, we find that the Examiner's conclusion of obviousness is based on an unsupported finding of fact.

Thus, we are constrained to reverse the rejection of independent claim 1 and dependent claims 12-15.

*Rejection of claims 8 and 10 over AAPA, Ilhara and Budrean*

The Examiner has not relied on Budrean for any teaching that would remedy the deficiency noted *supra* in the combined teachings of AAPA and Ilhara (Ans. 4).

Thus, we reverse the rejection of dependent claims 8 and 10.

CONCLUSION

The Examiner has erred in concluding that the combined teachings of AAPA and Ilhara would have led a person having ordinary skill in the art to the step of “allowing a return of the annular die under a pressure load in the opposite direction of that of pressing in the forming die; wherein the pressure load on the annular die is reduced with an increasing return path,” as called for in independent claim 1.

DECISION

The decision of the Examiner to reject claims 1, 8, 10 and 12-15 is reversed.

REVERSED

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